Abstract

[PROBLEMS] To provide a novel method for the allylation of N-acylhydrazones by which enantioselectively allylated N-acylhydrazines can be efficiently obtained.

[MEANS FOR SOLVING PROBLEMS] A method for the production of enantioselectively allylated N-acylhydrazines represented by the general formula [3]:

[wherein R^0 is an optionally substituted hydrocarbon group, an optionally substituted heterocyclic group, or $-COOR^1$ (wherein R^1 is a hydrocarbon group); R^2 is acyl; R^3 and R^4 are each hydrogen, or one of R^3 and R^4 is hydrogen and the other is a hydrocarbon group; and R^5 and R^6 are each independently hydrogen or a hydrocarbon group], characterized by reacting an N-acylhydrazone represented by the general formula [1]:

$$\begin{array}{c|c}
N & \text{NHR}^2 \\
R^0 & \text{H}
\end{array}$$
 [1]

[wherein R^0 and R^2 are as defined above] with an allylating agent such as allyltrichlorosilane or crotyltrichlorosilane in the presence of a chiral phosphine oxide.